

REMARKS

Claim 1 has been amended. Claims 8-20 have been withdrawn without prejudice. Claims 21-26 have been added. Thus, Claims 1-7, and 21-26 are pending in this application. The Examiner made the requirement for restriction to claims 1-7 final. Applicant reserves his right to file a petition from requirement for restriction according to 37 CFR §1.144 because Applicant believes that Nyssen does not anticipate the apparatus claims as will be discussed below with respect to claims 1-7.

I. Claim Rejection under 35 U.S.C. §112

The Examiner rejected Claim 1-7 under 35 USC §112 as being indefinite for lack of line indentation. Applicant amended independent claim 1 to include proper line indentations. Thus, Applicant believes that the above rejection is now overcome.

II. Claim Rejection under 35 U.S.C. §102

The Examiner rejected claims 1-5 and 7 under 35 U.S.C. §102(b) as being anticipated by Nyssen. The Examiner stated that Nyssen discloses the same method of manufacturing fine threads from meltable polymers as claimed in independent claim 1. Applicant respectfully disagrees.

Nyssen discloses a method for manufacturing of fine fibres from meltable polymers according to the meltblown method. Fibres itself are already different from threads as they are of short length whereas the present invention is related to substantially endless threads. The meltblown method is also described in the background section of the present application. The Nyssen reference discloses such a melt blown process according to which a gas stream after having been accelerated to supersonic speed by Laval nozzles is decelerated by following flow chambers. This gas stream is then blown against the melt stream which issue from orifices while being attenuated into microfibres by means of the gas supplied from both sides at a high flow rate. Thus, the melt stream is definitely not passed together with the accelerated gas stream through the Naval nozzle arranged underneath the spinning nozzle.

Furthermore, the fibres are attenuated or thinned by this method and not split into fine threads as disclosed by the present invention. See in particular Nyssen col. 5, lns. 12-15 and col. 6, lns 66-68. To this end, the Naval nozzles of Nyssen are not placed below the melt exiting orifices but Nyssen rather discloses slots which are very close to the orifice and directed towards as shown in Figs. 3 and 4 of Nyssen.

On the contrary, according to the present invention, the spun thread is passed through the Laval nozzle and the temperature of the melt as well as the throughput and the gas flow is controlled in such a way that the thread attains a hydrostatic pressure in its interior. Thus, due to this inner pressure and the lower outer gas pressure the thread burst after exiting the Laval nozzle into fine threads. Nyssen does neither disclose nor suggest to control the temperature of the melt in combination with the throughput and the gas flow to cause the bursting after exiting the Laval nozzle. This process allows for a much higher throughput which is about 10 times higher than that of known melt-blown processes. Furthermore, it allows to use cold air, wherein, for example, Nyssen requires the use of heated air. See Nyssen col. 4, ln. 67 and col. 8, lns. 7-8.

The claims 2-7 are dependent claims and, thus, include all the limitations of the respective independent claim 1. Therefore, these claims are patentable at least to the extent of the respective independent claims.

Applicant thanks the Examiner for pointing out that claim 6 would be allowable if re-written in independent form. However, as explained above Applicant believes that Nyssen does not anticipate the present invention as claimed in claims 1-7. Applicant added new claims 21-26 which include an independent claim 21 with the limitations of former claims 1 and 2.

SUMMARY

In light of the above remarks, reconsideration and withdrawal of the outstanding rejection is respectfully requested. It is further submitted that the application is now in condition for allowance and early notice of the same is earnestly solicited. Should the Examiner have any

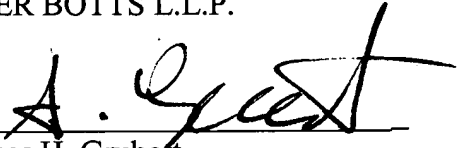
questions, comments or suggestions in furtherance of the prosecution of this application, the Examiner is invited to contact the agent of record by telephone or facsimile.

Applicants do not believe that any other fees are due at this time; however, should any fees under 37 C.F.R. §§ 1.16 to 1.21 be required for any reason relating to this document, the Commissioner is authorized to deduct the fees from Deposit Account No. 02-0383, (*formerly Baker & Botts, L.L.P.,*) Order Number 073306.0101.

Respectfully submitted,

BAKER BOTTS L.L.P.

Date: April 21, 2004

By: 
Andreas H. Grubert
(Limited recognition 37 C.F.R. §10.9)
One Shell Plaza
910 Louisiana Street
Houston, Texas 77002-4995
Telephone: 713.229.1964
Facsimile: 713.229.7764
AGENT FOR APPLICANTS